



The Minuteman Repeater Association

A non-profit organization providing communications infrastructure and volunteers for community and emergency events.



The Minuteman

Volume 44, Number 4

March 2015

Membership Meeting ~ Wednesday, Mar 18 ~ 7 PM

Dick Frey - WA2AAU

VHF CONTESTING – Let's Just Do It

The presentation will be about VHF contesting, how it works, and why it is fun. It will cover various aspects such as how to get involved, how far you can talk, what is a rover station. It will use lots of examples from the W2SZ contest operation, but will talk about how just anyone can get involved either from home or from his car on some hilltop.

Dick is President of the [New England Weak Signal Group](#), the premier VHF/UHF club in the Northeast. [NEWS](#) is dedicated to weak signal work on 50 MHz and up. Dick is also President of the [Mt. Greylock Expeditionary Force](#) (W2SZ—the VHF contest group on Greylock Mt.)

Now an Extra Class licensee, Dick was first licensed as a Novice in 1962 while still in High School. While at RPI in Troy, NY, for his EE degree he first participated in VHF contests from W2SZ. W2SZ moved to Mt. Greylock in 1969 and has operated from there ever since. He built and currently operates the 2, 3, & 5 GHz stations on Mt. Greylock. He has helped lots of hams get on the air on the microwave bands over the years.

Dick will be traveling from west of Albany, New York to present at our meeting. Don't miss this special presentation.

Location: Tatnuck Bookseller, Westborough, MA (See P.3)

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Band	XMTR Location	Freq	PL	Call	Linking	
					To Hub 1	To Hub 2
MMRA Voice Repeaters						
10m	Marlborough	29.680	131.8	W1MRA	PTL	PTL
6m	Marlborough	53.810	71.9	W1BRI	PTL	PTL
2m	Brookline	145.160	na	K1MRA	D-Star	
	Belmont	145.430	146.2	N1DDK	PTL	FTL: DARI
	Mendon	146.610		AE1C	FTL	PTL
	Quincy	146.670		W1BRI	PTL	PTL
	Burlington	146.715		KC1US	PTL	PTL
	Weston	146.790		N1BE	PTL	PTL
	Boston	146.820		K1BOS	FTL	PTL
	Remote receive in Brookline Boston: PLin = 127.3					
Marlborough	147.270	146.2	W1MRA	PTL	PTL	
1½m	Hopkinton	223.940	103.5	KB1LOY	PTL	FTL
	Quincy	224.400		N1KUG	PTL	FTL
	Weston	224.700		N1NOM	PTL	FTL
	Marlborough	224.880		W1MRA	PTL	FTL
70cm	Lowell	442.250	88.5	K1LVF	FTL	PTL: 446.775
	Weston *	442.700		KG1H	Network Hub 2 (PTL to Hub 1)	
	Burlington	446.775		W1DYJ	FTL	PTL
	Marlborough	448.225	na	W1MRA	D-Star	
	Southborough	449.575	88.5	W1BRI	PTL	PTL
	Marlborough *	449.925		W1MRA	Network Hub 1	
33cm	Boston *	927.0625	D244	K1RJZ	PTL	PTL
	Marlborough *	927.700		W1MRA	PTL	PTL
PL out = 131.8						
Marlborough		144.390	none	W1MRA	APRS Digipeater	
???		145.630	146.2	W1MRA	Fox Box	
*Internet	HUB1- 449.925: IRLP node 4133 / Echolink node 4133					
	HUB2 - 442.700: IRLP node 4136; Connected to 220 Reflector 9124 on Tuesdays					
	927.0625: IRLP 4977			Normally linked to the NE900 Reflector, 9125. Linked to MMRA via IRLP for the TIAOS net. Normally linked		
	927.700: IRLP 4978					
Notes: FTL = Full Time Linked (or default state) PTL = Part Time Linked (on schedule or demand)						

President's Corner ~ Bob DeMattia, K1IW

Sligo: Enough Said...

There is no access to the Sligo shelter. We can't get into it to fix anything.



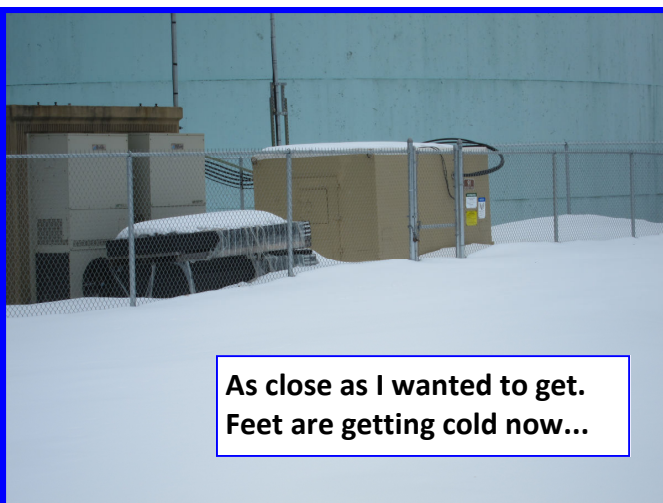
They didn't plow the walkway.
Here is the view of the baseball
field from the parking lot.



Once you climb over the
snow pile, you see this.



A little closer:



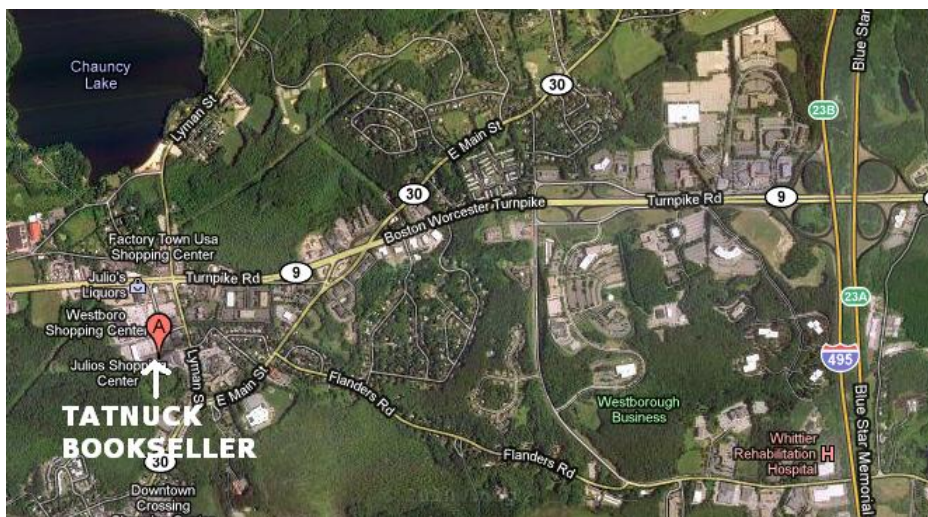
As close as I wanted to get.
Feet are getting cold now...

Directions to Tatnuck Bookseller

**18 Lyman Street (Lyman at Route 9)
Westborough, MA 01581**

From the North/South/East: Take I-495 to the route 9 interchange in Westborough. Head West on route 9 to the Lyman street traffic light. Take a left onto Lyman street. Tatnuck Bookseller will be about 1/2 mile down Lyman on your right.

From the West: Take route 9 east to the Lyman street traffic light in Westborough. Turn right onto Lyman Street. Tatnuck Bookseller will be about 1/2 mile down Lyman on your right.



February Business Meeting ~ Bob Evans, Clerk, N1BE

The MMRA board met on Feb 12, 2015 at 7:00 PM in the Maynard office of Stratus Technologies for a business meeting. In attendance were K1KWP, K1IW, N1DDK, N1BDA, W1MPN, N1BE, W3EVE, WA1NVC, KG1H and K1BOS. Also present were two visitors from the BAA Amateur Radio Subcommittee to discuss public service at the Boston Marathon: K6MCF - Matthew Forman and KD1CY - Rob Macedo.

The agenda covered the following points.

(1) Treasurer & Membership Report

K1KWP presented current account balances and spending for this fiscal year both to date and projected to the end of the year. Big ticket items are: the Slygo tower project (61% of total projected expenses), and electricity for MRW is 14%. Kevin then discussed income sources and amounts followed by an analysis of income verses expenses for the current and last several years.

Paid memberships have been climbing slowly and with 14 families plus 204 individuals, we now have the greatest number of paid members in the last ten years. Unfortunately, 37 memberships from the previous year have expired. Now that the Sept. to Dec. membership grace period has ended, newsletters are no longer provided and a few non-MMRA repeaters have lost affiliation.

(2) Marlborough flea - Saturday Feb 14.

The MMRA VE team will give exams at the flea. Bob, K5TEC will man the table with Dave Gilman, KC1DDH.

(3) Boxboro - August 2015

The board voted to approve an expenditure not to exceed \$500 to purchase door prizes for those who pay MMRA dues at the convention. We agreed to purchase a UHF antenna analyzer for about \$300 and a few HTs. A 6-meter antenna that was previously donated to the MMRA was also proposed as a prize.

(4) 449.575 Relocation

We have been notified that the EMC ARC wants to put

their 448.375 repeater back on the air. This means we have to find a new location for 449.575. The board approved a motion to relocate this repeater from Southborough to Hopkinton, subject to approval of necessary expenses. Members will be asked to approve this expenditure at the March MMRA meeting.

(5) Boston Marathon

Rob and Matthew discussed issues that led to the new leadership of ham communications for this event. Perhaps most significantly, due to problems mostly in non-ham communications areas, there is a comprehensive review of marathon communications. This review is overdue since many types of communications are used and the growth of these has not been well coordinated in the past.

Then they discussed the ham radio teams: Start, Course, Transport, Net Control facility, Finish, and interface to Public Safety; with a BAA Amateur Radio Subcommittee member leading each. Although there are a few new people in the leadership positions, many of the BAA subcommittee members have experience relevant to their current roles. The relationship between hams and the BAA is more formally defined.

The BAA has specifically authorized subcommittee members to be captains of the teams. Delegation of some tasks is expected. But authority is being concentrated in the BAA and public service.

Further details were discussed and many of the MMRA board members raised issues with what is being proposed for 2015. A meeting of some BAA subcommittee members and key MMRA members who led marathon communications in the past has been proposed for the week after next. Hopefully, planning will make significant progress since tonight there is less than 7 weeks left before the event.

The meeting adjourned at 9:45 PM.

**Next MMRA Business Meeting:
Wednesday 16 April, 7PM
Stratus, Maynard**

**Have you renewed your
membership yet?**

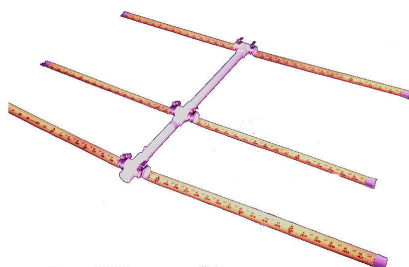
All 2014 memberships expired on August 31st! Time to renew either on the Member's login link at www.mmra.org or by U.S. Mail with a check to MMRA, PO Box 669, Stow, MA 01665.

Hunting the PART Fox Boxes ~ Bob Evans, N1BE

At the November MMRA meeting we saw a presentation by W1FDR about the PART (Police Amateur Radio Team of Westford) fox boxes (radio transmitters) hidden outdoors to be found by others. I like this kind of challenge and decided to check it out. For each of the last few weeks, fox boxes were placed on conservation land in the towns of Acton, Concord, Westford and Chelmsford. There were three or four boxes to find each weekend.

Most of the boxes transmit on 146.565 MHz but there also is one that is on 432.300 MHz. Transmissions use FM and occur about once a minute with distinctive audio tones and a CW ID.

I have been using a 2-meter ARDF AM receiver and an old Yeasu dual-band FM HT for hunting. To judge the direction of the fox, I use a home-made yagi:



http://theleggios.net/wb2hol/projects/rdf/tape_b_m.htm

this antenna seems to work very well for fox hunting because it has a good null to the rear. On UHF where I have no directional antenna, I have been using the body fade technique.

Two of the 2-meter foxes transmit without any need to be triggered. With output in the range of 15mW, the batteries still last for several days. (The announcement email will indicate whether the particular fox box needs to be triggered.)

Other PART fox boxes must be triggered to start transmitting. In this case, you would need to send the DTMF digit "2" for two seconds on the output frequency of the box. If it can hear you, the fox then will transmit periodically for about 15 min-

utes; then you can trigger it again.

Phase one of my hunts is driving until I hear signal from the fox. Generally this means I am within a mile or two of the box. I get out of the car and take a directional reading and use a map to triangulate in to the general location of the fox. Once I have a strong signal without any deep fading from mobile flutter, the fox is not far away.

Then I continue on foot, using the same triangulation technique. When the signal is all bars with no antenna, the box is close enough to be seen. If the signal cannot be nulled out, I use my eyes to search for an olive drab ammo box hidden under leaves or branches within 15 feet from where I am standing. Next to the box there's a zip-lock bag with paper for sign in to claim credit for finding the fox.

The fox has always been a thousand feet or less from where there is parking for the public to access the conservation land, but of course you can walk further trying to find it.

If this interests you, consider subscribing to the PART email. Deployment announcements and reports of who found the box is on the email list of the Police Amateur Radio Team of Westford:

<http://lists.wb1gof.org/listinfo.cgi/PART-L-wb1gof.org> .

This is a low activity list without many other messages. Subscribing to this list is the way to be notified when foxes have been hidden.

And there is much more info about fox hunting at the Homing In web site

<http://www.homingin.com/> .

I really missed the MMRA Fox box and live hunts. Thanks to the PART guys, I am having that fun again!

January Membership Meeting Notes ~ James Lee, N1DDK

New Roles for Amateur Radio in Public Service and Emergency Communications

Rob Macedo, KD1CY

President Bob, K1IW, opened meeting at 7:12 pm and thanked everyone for coming. There were 25 members in attendance. Currently we have 233 active members, 250 total members, with 57 new members, a growth of 20 members.



All 23 repeaters are working, including the new D-Star system in Marlborough, Bob then discussed the details of the Belmont system, repairs, and linking. Boxborough is happening again — August 21,22,23. Business concluded at 7:24

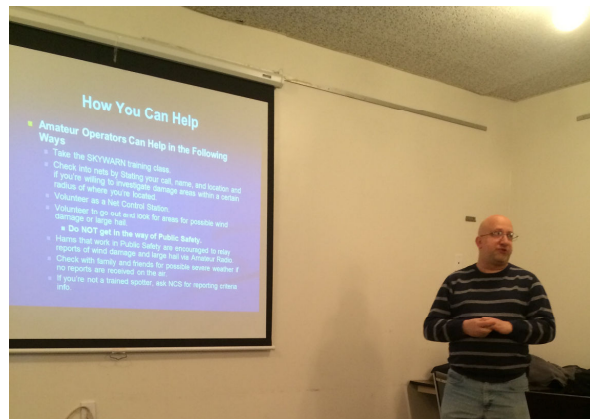
Bob then introduced Rob Macedo with our feature presentation. Rob KD1CY talked about Public service, emergency communications and Skywarn / severe weather spotting.



Bob also talked about earthquakes and power outages. You can help as an observer: weather, public service, power outages etc.

Following a Q&A about how to better work with fire and

other emergency services, Rob talked about the web site: wx1box.org, and the Facebook & twitter feeds: twitter.com/wx1box and [Facebook.com/wx1box](https://facebook.com/wx1box).



The meeting concluded at 8:25

The Amateur's Code

The Radio Amateur is:

CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC...station and skill always ready for service to country and community.

Paul M. Segal, W9EEA, 1928

Upcoming MMRA Meetings

Wed, 24 Sept ~ Membership Meeting
The Art and Science of Radio Direction Finding, Bob Ravenstein—W1FDR
Northborough Public Library

Wed, 15 Oct ~ Business Meeting
Stratus, Maynard

Saturday, 15 Nov ~ Membership Meeting
Our November meeting will be at the WTAG radio station transmitter in
Holden. Don't miss this special event!

Wed, 17 Dec ~ Business Meeting
Stratus, Maynard

Wed, 21 Jan ~ Membership Meeting
New Roles for Amateur Radio in Public Service and Emergency
Communications ~ Rob Macedo, KD1CY
Westborough Public Library

Wed, 18 Feb ~ Business Meeting
Stratus, Maynard

Wed, 18 Mar ~ Membership Meeting
VHD Contesting — Let's Just Do It
Dick Frey - WA2AAU ~ President of both the NEWS group & W2SZ
Tatnuck Bookseller, Westborough, MA

Wed, 15 Apr ~ Business Meeting
Stratus, Maynard

Wed, 20 May ~ Membership Meeting
Annual Meeting: Officers Report and General Elections
Location TBA

Wed, 17 June ~ Business Meeting
Stratus, Maynard

Wed, 21 July ~ Mid-summer Get Together
Location TBA

Wed, 19 Aug ~ Business Meeting
Stratus, Maynard

Don't Forget! Join Us.

Every Tuesday @ 8 PM
Technical, Informational and Other
Stuff Net

The MMRA's repeaters are linked Tuesday nights
for the TIOS Net. Keep up with what's happening
in the MMRA and ask your ham related questions.

Net Control Operators:

Week 1	WA1JIM	Jimmy Devaire
Week 2	W1DYJ	Larry Banks
Week 3	KC1CLA	Ed Curley
Week 4	K1KWP	Kevin Paetzold
Week 5	KB1OQA	Tom Turner

To connect using Echolink / IRLP during the Net:

- Echolink Conference *NEW-ENG2*
- IRLP node 4133

MMRA Leaders

Officers

President	Bob DeMattia	K1IW
Vice President	Steve Telsey	N1BDA
Secretary	John McGovern	W1JMC
Treasurer	Kevin Paetzold	K1KWP
Clerk	Bob Evans	N1BE
* Technical Officer	Bryan Cerqua	W1BRI

Board of Directors

Director »2015	Steve Schwarm	W3EVE
Director »2015	Roger Coulson	WA1NVC
Director »2016	Clark Conti	N1NVK
Director »2016	Mike Neilsen	W1MPN

Repeater Trustees

* Belmont 145.430	James Lee	N1DDK
* Boston 927.0625	Rick Zach	K1RJZ
* Boston 146.820	John Mullaney	K1BOS
* Brookline 145.160	Joyce DeMattia	N1QPH
* Brookline 146.820 Rcvr	Bob Phinney	K5TEC
* Burlington 146.715	Bruce Pigott	KC1US
* Burlington 446.775	Larry Banks	W1DYJ
* Hopkinton 223.940	James Cahill	KB1LOY
* Lowell 442.250	Vince De La Flor	K1LVF
* Marlborough 53.810; Quincy 146.670;		
Southborough 449.575	Bryan Cerqua	W1BRI
* Marlborough: 29.68, 144.390, 147.270, 224.880,		
448.225, 449.925, 927.700 — all as W1MRA		
	Bill Northup	N1QPR
* Mendon 146.610	Jim Podsiadlo	AE1C
* Quincy 224.40	Bill Dunn	N1KUG
* Weston 146.790	Bob Evans	N1BE
* Weston 224.700	Eddie Mulhern	N1NOM
* Weston 442.700	David Wolfe	KG1H

Additional, non-Voting

* Newsletter Editor	Larry Banks	W1DYJ
* Emerg. Coord.	Kevin Paetzold	K1KWP
* Pub. Serv. Coord.	David Wolfe	KG1H
* VEC Liaison	Bill Wade	K1IJ
* Net Manager	Larry Banks	W1DYJ
* Web Page Editor	Bob DeMattia	K1IW
	* Appointed	

Previous issues of the MMRA Newsletter are available at:
www.mmra.org → [Newsletter Archive](#) (on the left)

MMRA VE Sessions

Second Saturday

9 AM at the Marlboro Public Library

Contact: Bill Wade, K1IJ 781-891-9079

Evenings 6 - 10 PM Weekends 8 AM to 10 PM.

Accredited by the ARRL VEC

Membership Meeting ~ Wednesday, Mar 18 ~ 7 PM

Dick Frey - WA2AAU

VHF CONTESTING – Let's Just Do It

Talkin: 147.27

Calendar of Ham Radio Flea Markets

For more information: <http://mit.edu/w1gsl/Public/ne-fleas>

22 Mar	Henniker NH	CVRC	@CommSch	31 May	Sorel-Tracy PQ	STARC	
27,28 Mar	Lewiston ME	ME Conv	@Ramada	6 Jun	Hermon ME	PSARA	@HS
11,12 Apr	Wakefield MA	@AmericalCtr		6 Jun	Windsor CT	VR+C Mus	115 Pierson
11 Apr	Windsor CT	VR+	115 Pierson	7 Jun	Bethpage NY	LIMARC	@Briarcliffe
12 Apr	Framingham MA	FARA	@KeefeTech	21,23 Aug	Boxboro MA	FEMARA	NE Conv
18 Apr	S Portland ME	PAWA	@Am Legion	30 Aug	Adams MA	NoBARC	@BoweFld
19 Apr	Cambridge MA	Flea at MIT		5 Sep	Windsor CT	VR+C Mus	115 Pierson
25 Apr	Brookline NH	NEARC	Antique	13 Sep	Ballston Spa NY	SCRACES	@FG
25 Apr	Gales Ferry CT	RASON	@FireHs	13 Sep	Newtown CT	CARA	@TownHall
1,2 May	Deerfield NH	NEARfest XVII	@FG	19 Sep	Forestdale RI	RIAFMRS	@VFW
9 May	E Greenbush NY	EGARA	@FireCo	20 Sep	Cambridge MA	Flea at MIT	
17 May	Cambridge MA	Flea at MIT		26 Sep	Brookline NH	NEARC	Antique
30 May	Goshen CT	SoBARC	@FG	17,18 Oct	Wakefield MA	@AmericalCtr	
31 May	Fishkill NY	MtBARC	@QWL	16,17 Oct	Deerfield NH	NEARfest XVIII	@FG

THE MINUTEMAN REPEATER ASSOCIATION

MMRA
P.O. Box 669
Stow, MA. 01775-0669

Email: contact@mmra.org



WE'RE ON THE WEB
[HTTP://WWW.MMRA.ORG/](http://www.mmra.org/)

**Have you renewed your
membership yet?**

All 2014 memberships expired on August 31st!
Time to renew either on the Member's login link
at www.mmra.org or by U.S. Mail with a check